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EXAMINER	
BELYAEV, YANA	
ART UNIT	**PAPER NUMBER**
1791	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,659	LINDNER, WALTER	
	Examiner	Art Unit	
	YANA BELYAEV	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-64* is/are pending in the application.

4a) Of the above claim(s) *58-64* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 May 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/3/09, 5/7/05, 6/30/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 58-64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 22 September 2009.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 47 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 47, priority is not granted for claim 47 to 10 November 2003, which is the established US Filing Date, since it was filed 10 May 2005. Thus, the claimed subject not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 49 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 49, it is unclear to the examiner what the applicant means by "a device becoming effective." It is not clear to the examiner what device the applicant is referring to.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 33-35, 37-42, 48, and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 19823515 (Badin hereinafter).

Regarding claim 33, Badin discloses a plant for the manufacture of glass stoppers provided with a head part for the closing of bottles (page 1, paragraph 3), comprising a multi-part mold (page 1, paragraph 12, "two tools") which determines, in the closed state, the negative contour of the stopper to be manufactured, a feeder system for supplying the mold with molten glass (page 3, paragraph 8, "feeder of an inlet gutter"), a multistation press (page 2, paragraph 11, "the machine covers two figuration stations) and an arrangement for the removal and for the further handling of the glass stoppers produced (paragraph 5, "conveyor belt"),

characterized in that, the mold is formed by a base part (Figure, element 8) having a cut-out (page 1, paragraph 11,"bottom end of mold") corresponding to a first part length of a stopper;

a middle part of two part elements (Figure, elements 2 and 3) of a mold which are in particular displaceable relative to one another and perpendicular to the longitudinal axis (page 1, paragraph 12, "vertical axis") of the mold, which can be coupled in a self-centering manner and which determine a hollow space corresponding to a second part length of a stopper and to at least a main region of the head part in the coupled state and in the state contacting the base part (page 3, paragraph 5, "hollow space");

and an upper part (Figure, element 4) having a central pressing stamp (Figure, element 5) axially displaceable relative to the upper part and closing the hollow space of the head part for the forming of a tolerance compensating recess (page 3, paragraph 8, "collar" "thick fluctuations") in the head part of the stopper (Figure, element 11).

The use of the glass stoppers in wine bottles and sparkling wine bottles constitutes intended use. Since the structure disclosed by Badin is capable of performing the intended use, namely being used in wine bottles and sparking wine bottles, it meets the claim.

Regarding claim 34, Badin discloses that the hollow determined by the part elements (Figure, elements 2 and 3) of the mold forming the middle part extends axially beyond the planar surface of the head part and bounds the head part at its outer periphery, on the one hand, and at a radially outwardly disposed marginal region of the planar surface, on the other hand.

Regarding claim 35, Badin discloses that the upper part with a centrally guided pressing stamp closing the hollow space of the head part has a ring nose (end of element 5 closest to element 11) which engages in a shape-matched manner into the hollow space determined by the part elements of the mold, with the outer diameter of the ring nose being smaller than the outer diameter of the head part (Figure, element 5 and 11).

Regarding claim 37, Badin discloses that the first part length of the stopper expands, preferably conically, starting from the base surface of the base part and ends at a position of discontinuity of the stopper diameter (Figure, element 11).

Regarding claim 38, Badin discloses that the part elements (Figure, elements 2 and 3) of the mold of the middle part, which can be coupled in a self-centering manner, form, on the one hand, the second part length of the stopper of in particular cylindrical shape and reduced diameter extending from the position of discontinuity up to the head part (reduced diameter part of element 11).

Badin does not specifically disclose that the head part is preferably designed in disk shape over practically its total height.

However, Badin does disclose that the head part is used as a stopper for bottles, such as beer and soda bottles (page 1, paragraphs 1 and 3). Since bottle openings are round, and to be an effective stopper, the stopper must make a tight seal with the bottle opening. Thus the diameter of the stopper must be a disk shape over its total height.

Regarding claim 39, Badin discloses that, when the mold is closed, the dividing line between the upper part (Figure, element 4) of the mold and the part-elements (Figure, elements 2 and 3) of the mold forming the middle part of the mold is disposed beneath the planar surface (page 2, paragraph 4, "planar") of the stopper (Figure, element 11) in the region of the stopper rounding.

Regarding claim 40, Badin discloses that the upper part (Figure, element 4) of the mold forms a planar surface on the disk-shaped head part (page 2, paragraph 4, "planar"), on the one

hand, and a part region of the rounding, on the other hand, which merges into a cylindrical outer contour of the head part (page 3, paragraph 8, "collar").

Regarding claim 41, Badin discloses that the diameter of the pressing stamp (Figure, element 5) is larger than the diameter of the second part length of the stopper (Figure, element 11, part between elements 2 &3).

Regarding claim 42, Badin discloses that the pressing stamp (Figure, element 5) is actuated in lagging manner with respect to the upper part (Figure, element 4) of the mold and a central compression spring, at least one pneumatic cylinder is/are fitted between the pressing stamp and the upper part (page 3, paragraph 6, "mechanical and/or pneumatic").

Regarding claim 48, Badin discloses that a respective follow-up device is provided in each of one or more stations following the feed and press station which acts mechanically or pneumatically on the recess of the head part of the stopper (Figure, elements 9 and 10 and page 3, paragraph 5).

Regarding claim 51 Badin discloses that at least the two part elements of the mold of the middle part are fitted with complementary shape-matching members at the surfaces facing one another and contacting one another in the closed state (Figure, elements 2 and 3) and in that a cross centering device is preferably provided between the middle part and the upper part (Figure, bottom arm of elements 6 and 7).

2. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Badin in view of US Patent 4,772,306 (Davey hereinafter).

The teachings of Badin are detailed in the rejection of claims 33-35, 37-42, 48, and 51 under 35 USC 103(a) above.

Regarding claim 46, Badin does not discloses that a fall and guide channel is provided in the feed station for the supply of glass gobs in a centered manner with respect to the mold from a pre-settable drop height.

However, Davey discloses a glass gob delivery system which supplies glass gobs in a centered manner with respect to the mold (column 3, lines 16-18) and from a pre-settable drop height (column 4, lines 42-45), wherein since the height is different is interpreted by the examiner that the height can be pre-set.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Davey with the teachings of Badin since Badin discloses shaping glass gobs in a mold (Badin, abstract) and Davey discloses delivering glass gobs to a mold (Davey, abstract).

3. Claims 36, 43-45, 50, 52-53, and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badin in view of DE 19649030 (Rauh hereinafter).

The teachings of Badin are detailed in the rejection of claims 33-35, 37-42, 48, and 51 under 35 USC 103(a) above.

Regarding claim 36, Badin does not disclose that the cut- out of the base part is bounded at the base side by a plunger having an ejection function and whose end face is smaller than the base surface of the cut-out; and in that the base is in particular made in one part.

Rauh discloses that the cut- out of the base part (Figures 4 and 5, element 9) is bounded at the base side by a plunger having an ejection function (page 6, claim 5, "ejector") and whose end face is smaller than the base surface of the cut-out (Figures 4 and 5, top of element 9); and in that the base is in particular made in one part (Figures 4 and 5, element 9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 43, Badin does not disclose that the plunger having an ejection function can be moved into a retraction position enlarging the mold depth during the feed process.

However, Rauh discloses a plunger having an ejection function (page 6, claim 5, "ejector").

While Rauh does not specifically state that the plunger can be moved into a retraction position enlarging the mold depth during the feed process, it is obvious that if the ejector is in the process of ejecting a glass gob from the mold, the available space in the mold would be smaller than if the ejector is not in the process of ejecting a glass gob from the mold.

Regarding claim 44, Badin does not discloses that with the mold upper part positioned with a lateral offset, the otherwise closed mold is fed by a feeder system designed for droplet operation with glass gobs which fall through the middle part of the mold without contact and whose diameter to length ratio is disposed in the range from approximately 1 : 3.5 and whose length is preferably selected to be larger than the depth of the hollow space of the mold.

However, Rauh discloses that with the mold upper part positioned with a lateral offset (page 4, paragraph 1, "sliding mechanism…radially outward advanced"), the otherwise closed

mold is fed by a feeder system designed for droplet operation with glass gobs (page 6, claim 4, parts (a) and (b)).

Rauh does not disclose that glass gobs which fall through the middle part of the mold without contact and whose diameter to length ratio is disposed in the range from approximately 1: 3.5 and whose length is preferably selected to be larger than the depth of the hollow space of the mold.

However, Rauh does disclose that glass drop is metered (page 4, paragraph 1, "metered glass drop "). Thus the size, shape, and amount of the glass drop is established as a result effective variable. It would have been obvious to one of ordinary skill in the art at the time of the invention to have optimized the size, shape, and amount of the glass drop depending on the size and shape of the mold and viscosity of the particular glass (page 4, paragraph 1, "less deep into the molding..."). However, the optimization of a range or other variable within the claims that flows from the "normal desire of scientists or artisans to improve upon what is already generally known" is prima facie obvious. *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) (determining where in a disclosed set of percentage ranges the optimum combination of percentages lies is prima facie obvious). The discovery of an optimum value of a variable in a known process is usually obvious. *In re Aller*, 220 F.2d 454,456 (C.C.P.A. 1955).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 45, Badin does not disclose that the station designed for the feeding of the mold with glass gobs is simultaneously made as a station for the carrying out of the pressing process.

However, Rauh discloses that the station designed for the feeding of the mold with glass gobs is simultaneously made as a station for the carrying out of the pressing process (page 5, claim 4, part (c)).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 50, Badin does not disclose that the end face of the pressing stamp is concave in shape.

Rauh discloses that the end face of the pressing stamp is concave in shape (Figure 5, element 19).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 52 Badin does not disclose that each mold consisting of a base part, a middle part and an upper part are suspended in a mold holder while forming a free space on the base side.

However, Rauh discloses that each mold consisting of a base part, a middle part and an upper part are suspended in a mold holder while forming a free space on the base side (Figures 4 and 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 53, Badin does not discloses that the base part and the middle part is supported against vertical pressing forces which occur via a base part associated with them.

However Rauh discloses that the base part and the middle part are supported against vertical pressing forces which occur via a base part associated with them (Figure 5, element 9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 55, Badin does not disclose that a cooling track follows the transport belt and a respective plurality of stoppers can be transferred into it simultaneously from the transport belt by a transverse displacement process.

Rauh discloses that a cooling track (Figure 3, element 33) follows the transport belt and a respective plurality of stoppers can be transferred into it simultaneously from the transport belt by a transverse displacement process (page 5, claim 4, parts (d) and (e)).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 56, Badin does not discloses that a single- liner, a monitoring path and a station for the application of a seal are arranged downstream of the cooling track and a unit for the transfer of the finished stoppers onto a pallet is subsequently provided.

Rauh, however, discloses that a single- liner, a monitoring path and a station for the application of a seal are arranged downstream of the cooling track (page 2, paragraph 7, "sealing part…") and a unit for the transfer of the finished stoppers onto a pallet is subsequently provided (page 4, paragraph 1, "taken out…discharged…).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 57, Badin discloses a plant for the manufacture of glass stoppers provided with a head part for the closing of bottles (page 1, paragraph 3), comprising a multi-part mold (page 1, paragraph 12, "two tools") which determines, in the closed state, the negative contour of the stopper to be manufactured, a feeder system for supplying the mold with molten glass (page 3, paragraph 8, "feeder of an inlet gutter"), a multistation press (page 2, paragraph 11, "the machine covers two figuration stations) and an arrangement for the removal and for the further handling of the glass stoppers produced (paragraph 5, "conveyor belt"),

Badin discloses that, the mold is formed by a base part (Figure, element 8) having a cut-out (page 1, paragraph 11, "bottom end of mold") corresponding to a first part length of a stopper;

a middle part of two part elements (Figure, elements 2 and 3) of a mold which are in particular displaceable relative to one another and perpendicular to the longitudinal axis (page 1, paragraph 12, "vertical axis") of the mold, which can be coupled in a self-centering manner and which determine a hollow space corresponding to a second part length of a stopper and to at least

a main region of the head part in the coupled state and in the state contacting the base part (page 3, paragraph 5, “hollow space”);

and an upper part (Figure, element 4) having a central pressing stamp (Figure, element 5) axially displaceable relative to the upper part and closing the hollow space of the head part for the forming of a tolerance compensating recess (page 3, paragraph 8, "collar" "thick fluctuations") in the head part of the stopper (Figure, element 11).

The use of the glass stoppers in wine bottles and sparkling wine bottles constitutes intended use. Since the structure disclosed by Badin is capable of performing the intended use, namely being used in wine bottles and sparking wine bottles, it meets the claim.

While Badin does not explicitly disclose a heating path which can be supplied with the stoppers produced and in which the stoppers are brought to a substantially uniform temperature throughout, Badin does disclose bringing the glass stoppers to a molten temperature (page 3, paragraph 8, “molten glass”), which means that the glass must be brought to a substantially uniform temperature throughout.

Badin further does not disclose an adjoining fan air cooling path in which at least the outer region of the glass stoppers is intensely cooled and stabilized.

However, Rauh discloses an adjoining fan air cooling path in which at least the outer region of the glass stoppers is intensely cooled and stabilized (page 5, claim 4, part (d) and Figure 3, element 33).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

4. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Badin in view of Rauh and further in view of Davey.

The teachings of Badin are detailed in the rejection of claims 33-35, 37-42, 48, and 51 under 35 USC 103(a) above.

Regarding claim 54, Badin does not disclose a turntable.

However, Rauh discloses that for the continuous glass stopper production, a plurality of molds are arranged on a turntable (Figure 3, element 8) and can be supplied via a single-drop feeder system with defined glass gobs (Figure 5, element 5) and the glass stoppers solidified by convection cooling (Figure 3, element 33) can be removed in a removal station downstream of the respective supply station from the respective mold (Figure 3, element 34) by means of the plunger (page 6, claim 5, “ejector”) provided on the base side and by means of a suction lifter (page 4, paragraph 1, “gripper") and can be transferred onto a transport belt via a slide conveying device engaging at the head part (page 4, paragraph 1, "taken out...becomes then discharged...").

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Neither Badin nor Rauh disclose that a plurality of molds are arranged on a turntable and can be supplied via a single-drop feeder system with defined glass gobs via guide channels.

Davey, however, discloses guide channels for supplying glass gobs ().

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined Davey with the invention disclosed by Badin in view of Rauh, since Badin

discloses shaping glass gobs in a mold (Badin, abstract), Rauh discloses a mold feeder system (Rauh, abstract) and Davey discloses delivering glass gobs to a mold (Davey, abstract).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YANA BELYAEV whose telephone number is (571)270-7662. The examiner can normally be reached on M-Th 8:30am - 6pm; F 8:30 am- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. B./
Examiner, Art Unit 1791

/Eric Hug/
Primary Examiner, Art Unit 1791